

# ABSTRACT

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Flavonoids are plant secondary metabolites. Flavonoids have a positive influence on human health and show antioxidant activity. They scavenge free radicals and reduce the risk of cardiovascular diseases, inflammatory diseases and cancer. This bachelor thesis explores mechanisms of their action, relationships between structure of flavonoids and antioxidant activity as well as their potential benefit in the prevention and treatment of cardiovascular diseases. In addition, this work provides an overview of the significant effects of certain plants containing flavonoids such as *Camellia sinensis*, *Vitis vinifera*, *Achillea millefolium*, genus *Artemisia* etc.

Key words: flavonoids, the cardiovascular system, effects, antioxidants